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(Gynecological) to the German and Post-Graduate Hospitals of Chicago.

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ERRORS AND MODERN METHODS IN MINOR GYNECOLOGY.

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A large portion of gynecology is surgical. All the major means for relief of the greatest disorders require surgical attainments of the highest degree. It is in this part of our field, as in general surgery, that the greatest revolutions and improvements have occurred since we have come to understand the true substance and importance of surgical cleanliness. Here great achievements have been made. But it is not so in the balance,—numerically the greater portion of the gynecological domain, where the knife becomes a smaller, a wholly negative or a positively harmful factor. It is in this realm of minor gynecology, where the large or phenomenal pathological developments and strikingly obvious lesions are the exception, and the knife finds, or should find, little or nothing to do; it is here that the obscure, occult, complex and perplexing disorders prevail, in which the links of the pathological chain are hard to trace, and the beginning from the end, or the cause from the effect, is hard to distinguish.

For instance: To make a scientifically correct diagnosis of endometritis corporis as a primary organic lesion, without a curette and in the absence of a straight history of infection, is as difficult as to diagnose the average case of hydro- or pyosalpinx. To say whether the uterine discharge in a given case is due to endocervicitis only, or to a general endometritis, and whether the really primary or initial cause of the trouble is situated in the uterus at all, or consists in a derangement of the extrauterine pelvic circulation, or in abnormal

* A Lecture delivered at the Post-Graduate Medical School.

nervous influences from diseased ovaries, etc., is, in the majority of instances, as perplexing a question as to diagnose the average of fibroid tumors. To say whether a present plain laceration of the cervix has any causal relation to changes in the corpus uteri or to the position the uterus occupies in the pelvis, and to the usual horde of distant reflex functional disturbances, or whether the laceration is wholly innocent, requires a greater gynecologist than to diagnose the average ovarian cyst. And, furthermore, that the finding of an anatomical reason or other real and removable cause in most cases for the mental and physical eruptions that are so frequent among the unfortunate dwellers of that great realm called hysteria, to which many general practitioners and general surgeons of good standing, find it necessary to consign so many of their patients; that the relief of these suffers from bondage, or "The casting out of the evil spirit" requires discipline and attainments not usually found in general medicine or surgery, is the frequent experience of every true and efficient gynecologist.

That portion of the intellectual cosmos of many general practitioners and some general surgeons, which has been allotted to gynecology, is often like a very wide meshed sieve, upon which they place this class of their patients, and, unless these unfortunates present very marked local injuries, striking displacements, large inflammatory swellings or neoplasms, they fall through of course; and they are told that there is nothing the matter with them, that they imagine their pains and ill health; or they are invited to continue patiently with the routine of tonics and nervines that they have already endured at the hands of a number of reputable doctors, for many months and years, often at the expense of their stomachs, and along with their pains and bad health undiminished. And, of the others who entered the sanctum sanctorum of the surgeon and have returned from under his scepter, the knife, many also still are in bad health. And now, what if the complaints and tantrums of these two large categories of women should not cease after the internal administration of the most approved remedies "to strengthen the nerves" or to "improve the blood," after "taking exercise" or baths or traveling, or after change of climate, and after being repeatedly commanded to disbelieve their own feelings,—what then!—then many of these respected disciples of Esculapius cry Hysteria! and put these unfortunates into exile by saying that nothing can be done for them anyhow. In order to be really successful in this branch of medicine with the many obscure cases that constantly appear, it is necessary, *First*: that we be *good general physicians*, and as such be perfectly familiar with the pathological anatomy, clinical history and symptomatology (as gained by experience and not merely from books) of all the principal disorders, at

least, that occur in the brain, spinal cord, the organs of special sense and peripheral nerves, heart, lungs, liver, kidneys, stomach and intestines. We need quite badly to know about all that our brethren in the domain of general medicine can tell us. Otherwise we will not be able to distinguish the clinical picture presented by organic disease of an organ in the upper part of the body, from a similar picture presented by purely reflex or sympathetic symptoms, occurring in the same locality without any organic disease there. *Second:* it is necessary that we have developed the indispensable tactile sense, and have disciplined ourselves most thoroughly in the technic of digital and the various bimanual palpations: so that intellect will take possession of our fingers, hands and arms, and displace in them, as far as possible, the requirements for mere brute force. This usually requires some years of very attentive, careful and frequent examining of a large number of living females; and this course of training, which is in no respect smaller than that required to become an average performer upon the piano, should be directed and controlled, in the beginning, by a competent teacher for a longer time and with closer attention to details, than is usually possible in undergraduate schools and classes, *Third:* it is necessary in this, as in all other departments of our science and art, to be familiar with the gross and microscopic anatomy and the physiology of the female generative organs; furthermore with their proper position and *real* supports. *Fourth:* It is necessary to have unlearned much of that portion of their pathology, which is more than fifteen years old, and to have digested well that new edition of the same which had appeared little by little within the last ten years. But all books and lectures, just as they cannot make an artist, so they cannot give a practical knowledge of even the most ordinary and fundamental things in gynecology.

A normal uterus in normal position, or one that is displaced, one that presents a chronic metritis, and one that is pregnant, must be felt frequently to be known. For the selection of a pessary as to kind, size and shape, which, as Kaltenbach says, is more difficult than to do some laparatomies, and to avoid harm by limiting its use to correct indications, practice only can avail. But this practice of the amateur will often amount to malpractice, or, at least, a much greater harm to woman than good, unless it is limited and directed by an intelligent teacher, as in the service of an assistant in a private or public institution. Therefore such service is very much needed.

The diagnostic efforts in other departments of medicine and surgery admit of the use of a greater number of our special senses; as sight and palpation or touch nearly always, and hearing and smell generally. Not so with explorations of the woman's pelvis. Here we are limited in all chief respects to our sense of touch, for, if what is

seen through the speculum, the refuge of the tyro, is largely depended upon for diagnostic purposes, it leads astray more frequently than in the right direction. As those who are blind must read by touch, so the gynecologist must develop eyes in his finger tips if he would be a successful diagnostician, and especially if he would venture to use some of the modern efficient means of healing, like pelvic massage.

It is an accomplishment gained by years of practice, with such care, patience and perseverance as men are wont to bestow when responsibility is felt—when reputation and the dollar are at stake.

Here, then, ladies and gentlemen, is the chief and fundamental error in gynecology to which it behoves me to call your attention, viz: That minor gynecology is easy, requires no special knowledge, and that its armamentarium may be seized and used without special training, study or skill. This is a great mistake. It is equal to placing pen, ink and an open book before a child; it is more apt to misuse than to use; more apt to destroy than to create.

But this is not the opinion held of minor gynecology by many members of the general profession. But, like one who thinks that reading or hearing lectures about music will make a musician, and as if a scientific rationale, a correct recognition of cause and effect and distinction between symptoms and disease were not needed in minor gynecology as they are in other departments of medicine, many men, and women too, let loose their infected battery of appliances upon poor, confiding, helpless woman, infused with the mistaken idea that the value and thoroughness of an examination depends upon, or is proportionate to the number of instruments used; and with perfect confidence that a drachm of carbolic acid in a quart of ordinary water insures, justifies and sanctifies everything, their dirty hands, mourning fingernails and foul syringes not excepted. Those of us whose duties lie almost exclusively in this department, and are familiar with scientific facts (not theories) as determined by bacteriological and other labors, mostly in Europe, appreciate the lingering prevalence in minor gynecology and obstetrics of such evils as I have alluded to and the harm they do. And we would be traitors to our cause were we not to cry halt! and sound a warning. Therefore I trust I may be pardoned if some of my expressions seem severe.

It must be distinctly borne in mind that any adherence to old stereotyped dogmas and methods is not justified by citing good authors, teachers or preceptors of ten or more years ago, for those good people lived in an old dispensation when things were dark. But we have received a new revelation; a veritable sunrise of light has come to us from bacteriology, asepsis and abdominal surgery. If we, standing in this light, will keep our eyes closed against it and then

blame our good fathers for our errors and misdeeds, it is a question whether our minds are not as weak as those of our patients, whom we contemptuously call hysterical, and whom we do not help, frequently, because we don't know "*What is the matter!*"

There is still a large number of physicians who do not know; or do not want to know anything about sympathetic nerves, and they do not appreciate that these mystic threads and ganglia are prone to distribute a large share of pelvic symptoms over parts of the body far distant from the pelvis. But there is much of fact here that we must know, and without any danger of being mistaken for bastards, who have labeled themselves sufficiently front and rear with "Orificial surgery," we must study carefully many reflex phenomena if we would be successful with disorders of women.

Thus, aside from that general agitation, disquietude, tremulousness and irritability commonly called nervousness, and associated sometimes with melancholia, but more frequently with an irritable temper, we have the following:

1. Functional and sensory gastro-intestinal disturbances,—chiefly indigestion, constipation, flatulence and visceral neuralgias in general.

2. Vaso-motor neuroses, comprising palpitations of the heart, cold feet and warm head, nervous chills and flushes of heat (which are sometimes disturbances of surface temperature) and occasionally a desperate existence between profuse perspiration and a feeling of cold.

3. Peripheral neuralgias and headaches, in the order of their frequency about as follows: spinal ache or irritation, intercostal neuralgia, occipital neuralgia, isolated vertical headache or pressure, migraine, diffuse headache, tender spots in the inguinal regions, sciatica.

4. Neuroses in the mammæ, and formication and sense of paresis in one or both extremities of one side, and hysterical affections of joints.

5. Reflex disturbances in the respiratory tract, as the globus hystericus, paroxysms of dyspnea and "unmistakable attacks of asthma of which Hegar, Gruenewald, Engelman and Holden narrate examples" (Chas. H. Lee, "Transactions New York Academy of Medicine," 1891, p. 259). Of this I have seen several instances.

6. Functional disorders of the special senses, particularly of the eye, as well known by oculists. Occasionally we see some rare things. Thus, I once saw a distressing hiccough, that had resisted the efforts of a gynecologist and many others, take its departure permanently, while waiting upon a chronic metritis with galvanism. The causative relation that anomalies in the female generative organs bear to functional disturbances in other distant organs is proven clinically by

the testimony of very many most creditable witnesses in various departments of medicine. Their declarations we will present upon another occasion together with the conclusions arrived at by a number of recent investigators who have striven to get at the facts in this disputed subject, by not merely treating such gynecological subjects locally, but by examining also their stomachs and the contents of the same by means of complicated chemical and other processes. True, there is nothing new in this theme, and I have thought that it was a familiar part of general medicine for years. But if it were, why are gynecologists continually stocked and successfully laboring with cases where the bowel, liver, heart, pleura, head and general condition of the blood or nervous system have, singly or collectively, been subjected to the well known battery, in charge of the man on general medicine?—and with little good effect.

On the other hand, when the pelvic source of the general derangement is recognized and proceeded against, the general and local examinations and diagnoses are often such contemptibly superficial and homeopathic affairs that only a treatment of symptoms, local and general, follows, and, at best, only infinitesimal results are obtained. For what more than humbug does he or she dispense who invites a woman to come for local treatment perennially for "ulceration of the womb," when such adenoid degeneration of the mucous membrane depends upon a vicious laceration of the cervix, or upon the constant presence of abnormal uterine discharge. What more than treat symptoms do those short-sighted people do who stuff or inject the interior of the uterus with astringent, alterative or caustic powders, bougies or liquids, without ample dilatation, and without having investigated whether the endometrium is not helplessly subject to other primary or more occult disorders, of a systemic character, or in the pelvis outside of the uterus. And what shall we say of reckless tinkers who, when they have more or less obscure and serious cases of pelvic disease in hand, the nature of which is beyond the limit of their understanding and ability to relieve, and in utter darkness as to the indications, will play a pure game of chance upon the vital organs of women by "trying" various pessaries, "trying" sundry caustics, and experimenting with senseless and pernicious intrauterine manipulations and instruments like a child playing with fire!

That such superficiality of understanding and carelessness in matters pertaining to the minor sexual disorders of women largely exists, and that the routine, often irrational, use of the two-edged sword is frequent, by men who are unable to discern correct indications, is proven by numerous witnesses, many of whom have spoken and many who could speak. Suffice it to allude to criticisms of this nature by Halliday Croone of Edinburgh (*Edinb. Med. Jour.*, Feb.,

1891); Kaltenbach of Halle (*Centralblatt f. Gyn.*, 1891, p. 886); Bernhard Shultze (*Sammlung Klinischer Vorträge*, N. F., No. 24); Link (*Annals of Gyn. and Pædiat.*, Feb., 1891), and Ferguson of Indiana ("Transactions of Indiana State Med. Society, 1891"). Joseph Price of Philadelphia, (Philada Obstetrical Society); Wm. H. Polk, Pryor and Grandinn of New York (New York Acad. of Med., May 19, 1892), and to say with McMurtry of Louisville (*New England Med. Monthly*, Sept. 1891): "In many instances of inflammatory disease in the pelvis the mischief can be traced to manipulations with the aid of instruments which the physician resorts to in the examination and treatment of women affected with comparatively unimportant forms of uterine disease. A careful study of the clinical history of many of the cases of tubo-ovarian diseases with associated peritonitis, will convince any impartial observer that these diseases often result directly from minor operations upon the uterus, and intrauterine manipulations in which unclean instruments and mischievous chemical agents play a conspicuous part."

Thus many women who stand on a verge, as it were, between gradual recovery with conservative measures on one side, and the dominion of the abdominal surgeon on the other, receive, ignorantly or carelessly, an impetus in the wrong direction which lands them in that hades of continual suffering from which no woman returns without an abdominal section, and many do not return to health with it.

What, then is needed? Halliday Croone of Edinburgh (*Edinburgh Medical Journal*, Feb., 1891) gives the answer:

1. Improvement in, and education of practitioners in the simple manual examinations of the pelvic organs.
2. An improved and revised pathology of the intravaginal portion of the cervix, and,
3. and perhaps specially, the increased knowledge which abdominal section has thrown upon the contents of the pelvis.

For the past twelve months I have observed how a certain creditable minority of my hearers would proceed to examine a woman when they first came. During the last several years on various occasions, as in consultation, I have noticed quite a number of good practitioners do the same, and furthermore a number of recent graduates, even for whose old foggy and barren ideas some teachers would do well to look over the account of their responsibility. The impression which has thereby grown with me is, that they think gynecology is to be studied from a stand taken in the vagina, that sight is to do it rather than touch, that the perineum and cervix with its ostia and the uterine canal are the great and all overshadowing features in a woman's pelvis, and disclose in themselves the very depths of pelvic pathology, that in the absence of big tumors, there

is as little need of finding out anything from above: i. e., by bimanual palpation, as of feeling for the stomach in this connection. This is another serious error. For, the greater number of organs concerned and by far the most important ones in gynecology, those of most delicate structure, most highly endowed with vessels, nerves and lymphatics, those organs which preside over or perform such wonderful functions as the sexual orgasm, menstruation and childbearing, and are subject to the periodic developments and involutions of the latter, the organs which above all others in woman are the seat of neoplasms, and are placed upon the threshold of the peritoneal cavity,—*these organs are all above the vagina* and beyond inspection, roughly speaking, in the abdomen. For the tracing of all these structures and their numerous departures from health, bimanual palpation *alone* can serve. In the magnitude of its importance and its fruitfulness, it stands alone, overtowering all other methods combined, as THE way to examine a woman's pelvic organs. True enough, we need very much to examine carefully the whole pudendum (Skene, "Diseases of Women," p. 76,) the perineum, the vaginal ostium and vulvo-vaginal glands, meatus urinarius, the vagina as to size, shape, the texture of its walls and nature of its mucous membrane and secretions, the vaginal portion of the uterus as to length, thickness, consistency, its direction, mobility and conditions which have resulted from lacerations, inflammations and sometimes *whittling operations*. But all this is but a preliminary investigation which is to be followed by the principal examination.

But before we examine, we should usually take the patient's history, which will include on the one hand, an elicitation of her chief inconveniences, pains and disabilities in times gone by and at present, and on the other hand a careful inquiry into such circumstances, events and epochs in her life, as we know to be most prolific predisposing or exciting causes of female disorders. Such etiological events may be stated in the probable order of their importance, as (1) Childbirth and abortion, (2) gonorrhea, (3) Detrimental occupations and evil habits of life, dress and exercise, (4) Faulty development and (5) The occurrence of nerve shocks and strains. Under this head we must, in every case, think of, and in proper cases, inquire for the occurrence of any intense fright, fear, care, jealousy, grief, disappointment in love or distress in matrimony, as traumata to the nervous system.

The condition of neurasthenia or nerve strain thus produced manifests itself sometimes partly in the form of symptoms of uterine, ovarian, bladder or rectal disease. (Goodell: *University Med. Mag.*, vol. vii, p. 217). In such cases the links in the pathological chain are reversed. Instead of tracing the disturbance from the generative organs upward to the nervous system, as we must in most cases;

in *these* we must trace it from the nerve centres, from mental and emotional crises downward to the pelvic organs. Great acumen is required for a correct diagnosis in such cases as also in some who have wrecked their component nerve elements by self-abuse. To establish a sick mind, or neurasthenia, or nerve-strain as *the* diagnosis, instead of pelvic disease, in the presence of some pelvic symptoms and objective signs, requires a very broad and complete knowledge of the physiology and pathology of that wonderfully complex, sensitive and emotional organism called woman. To this trying class among our clientele, the mere surgeon and the monocular pelvic gynecologist are of no more benefit than the sheriff would be. Local treatment and internal remedies can not restore the shattered hopes, nor soothe that pang, nor quiet the broken heart! An entire change of environment, diversion, and facilities for planting hope in a new soil will do better. But, *our* duty is to place such patients in the care of those who are most fitted to care for nervous and mental diseases.

Having the essential points of the clinical history in mind, and having duly remembered the influence of mind on matter,—we proceed to do the most important, most responsible and oftentimes the most difficult act that our services in a large percentage of cases will include. That is the *examination*. Important—because, compared with other sources of information, it is as the daylight compared to that of a candle. Important—because it will chiefly determine the policy of action, the line of treatment, the assumption of surgical risks, and largely the success or failure of the means adopted,—not to speak of the doctor's own reputation and subjective satisfaction. An act or an effort which is thus pregnant with weal or woe to both patient and doctor, should not be entered upon in haste nor executed in a haphazard manner; but with much care and after the most favorable conditions have been secured by a suitable preparation of the patient. These favorable conditions, which are often absolutely essential to a successful examination, are notoriously absent in many women who come to a first examination in an office. The rectum is proverbially filled, the bladder often also, and they come laced as if their highest ambition were to demonstrate that a vertebrate may be converted into an articulate animal. Furthermore, from some cause they have recently experienced an exacerbation of their usual aches and disabilities, which are the incentive that drives them to us. Incidental to this they are temporarily more than usually sensitive locally. And now in the face of all these adverse conditions, they demand of us that we examine them, (without pain too) and tell them exactly what is the matter, and what their future will be, with and without medical or surgical aid. Now if we are unwise enough to enter upon this difficult task under conditions that make it quite impossible of execu-

tion, and will thus jeopardize the health and life of our patient and our own fair name, by converting a serious inquiry for facts into a botch of guess-work, we need not be surprised to have failure, remorse and accusation heaped upon us in coming months and years. But we will be more circumspect. To the woman who comes with all these barriers we will kindly explain, a few minutes, how, on anatomical grounds, an examination is not feasible in her case, without preparation; we will allude to the dire consequences of an inadequate examination, and will give her a prescription for a sufficiency of cathartics and carminatives to empty her intestinal canal of feces and of gas, possibly request her to subsist on liquid diet, and to return in twenty-four or forty-eight hours.

The examination proper that is worth the name is that by bimanual palpation variously applied, and without the aid of any instruments, as a rule. The chief obstacle, aside from those above mentioned, that is met by such an examination is the tension or rigidity of the abdominal walls, which is determined mostly by the voluntary and involuntary contractions of the abdominal recti muscles. We can eliminate this hindrance largely by bringing the points of origin and insertion of these muscles nearer together, *i.e.*, by approximating the symphysis pubis to the sternum. This we achieve best by placing the patient upon a double inclined plane, such as a good gynecological chair is readily converted into by giving its seat and back each, such an inclination as will form an angle of from 10° to 15° with a horizontal line, and so that the two planes meeting each other, will form a corresponding obtuse angle of from 150° to 160° on their upper sides. As the back of the chair forms the longer one of the two planes, both having the same inclination, the shoulders of the patient will be placed on a sufficiently higher level than the hips to prevent her from slipping upward so easily during examination. The footrests should be firm, should be situated on the sides of the seat and project forward several inches only from its front edge (except in short-limbed, very corpulent women), and should be elevated so as to stand in or slightly above the plane of its upper surface; so that when the patient is in position, with the buttocks properly drawn down to near the front edge of the seat, the heels will fall as nearly as possible into a transverse line drawn through the most forward projections of the nates. Then, after a kneebrace or double crutch, about a foot in length, has been placed between the knees or thighs, these will stand in abduction and flexed at about a right angle with the long axis of the body which lies curved forward upon the double inclined plane spoken of. The perineum and external genitals will then stand in an inclined plane which forms an acute angle of about 50° to 60° with a horizontal line. The skirts in front are shoved upward to the hips

under a sheet which secures the patient against all unnecessary exposure.

In this position of the patient we secure the greatest anatomical and mechanical advantages, compatible with reasonable comfort to the patient, for bimanual examination and for pelvic massage. And we do not give her the advantage of gravity in forcing her abdominal organs downward into the pelvis, which she enjoys in the Thure Brandt half-sitting posture.

The patient having removed her corset, (if she wears one) and having unfastened absolutely every belt, skirt-band or string around her waist down to the chemise—in an anteroom or in the chair in sitting posture—remains seated during the first steps of our examination, which pertain as a rule, *not to the pelvis*, but to the head and chest. The charge to us is to examine the *woman* and not merely her pelvis! We begin at the head, then take the mouth and throat, and carefully examine the thoracic organs in different stages of the respiratory act and perhaps in more than one position of the body. For, if we are diagnosticians at all, an important question already rests upon us: to decide whether the usual collection of subjective ills that the patient has in these parts of her body, are due to organic disease there or not. Thus an obstinate intercostal neuralgia is a very frequent symptom associated with chronic oöphoritis and perioöphoritis of the same side. The solution of this question will not frequently require that we make good use of the ophthalmoscope and of the laryngoscope, but these will be required in some cases. Indeed, a positive indication for the use of these truly useful and harmless instruments will arise fully as frequently, as for the use of the deceptive and dangerous uterine exploratory sound, that is cherished by the tyro and wielded most by those to whom ignorance still is bliss. After the chest comes the abdomen and pelvis. To explore these parts of the body we place the patient in the dorsal recumbent posture above described. In a general way we are concerned about the size, position, sensitiveness and consistence of the abdominal organs and about indurations and tumefactions that occur in them. Our palpating, percussing and questioning are directed by passing the following and kindred subjects through our mind: changes in size, shape, consistence and tenderness of the liver and of the gall bladder,—neoplasms, ulcers, dilatation and displacement of the stomach,—dilata-tions or contractions, indurations and tumefactions in the intestine and their probable cause or composition,—the size of the spleen—movable or floating kidney, usually and rather frequently the right one, which, together with inflammatory conditions and calculi in the renal pelvis, constitutes a most frequent source, next to the generative organs, of visceral neuralgias and functional disturbances in other

organs, especially in the bladder, stomach and in the thorax. The generative organs come last for several self-evident reasons.

The bladder should now be emptied with a catheter and the urine saved for examination, which will be simple or more complete as the case demands, but never omitted. We then call upon sight and simple digital palpation to officiate during the "preliminary investigation," before mentioned and to determine the numerous points comprised under that head. And, as they do so, we engage in a careful study of the past experiences and etiological features in our case, by looking regularly for evidences of abnormal development, of coitus, of parturition and its ravages, for evidences of masturbation, gonorrheal infection and promiscuous sexual intercourse, and for the thistles which these may have planted. No hemorrhoids, induration, stricture, ulceration or fissure of the anus or rectum must escape us. No rectocele, no vesicocele and no uterine descensus dare be overlooked. Having thus investigated the approaches and collected collateral or circumstantial evidence, we follow with the pelvic examination proper, by means of vagino-abdominal, recto-abdominal, or recto-vagino-abdominal (bi- and trimanual) palpation. This is the sovereign source of information, and unless we have trained our fingers to read its oracles and to interpret them correctly, our diagnosis will be guesswork and our therapeutic ventures failures,—very often.

The first landmark sought by the fingers of the outside hand in bimanual palpation should be the fundus of the uterus. Having the fingers upon it and being able thus to make counter-pressure with the same, we palpate the external os with the fingers of the other hand a second time, with slight pressure if required and determine whether there is anything pathological about the entire vaginal portion of the uterus. If so, it can be felt by the educated touch much better than it can be seen. By periodically releasing the organ from our grasp we ascertain what position it tends to occupy in the pelvis, *i. e.*, whether it stands in normal anteversion and flexion, or whether it be retro- or lateroverted or flexed, or whether it be ante-, retro- or lateroponated, with its long axis running in normal direction. Next we test its degree of mobility or fixation and the nature of the latter, while endeavoring to bring the fundus forward toward the symphysis pubis, and placing the outside fingers upon the dorsal surface of the uterus, if possible, with the depressed abdominal wall intervening, while the finger or fingers in the vagina are brought to bear against its anterior (inferior) surface, with the anterior vaginal wall and the bladder intervening. Thus grasped between the fingers of both hands, with the fundus pointing toward us and the external os into the hollow of the sacrum, we do not do harm by exercising vicious

traction upon its proper supports and can advantageously determine its size and shape (the relative and absolute lengths of the antero-posterior and transverse diameters of the corpus), its consistence and its tenderness. It is needless to say, that the uterine exploratory sound is imbecile in its capacity for giving real and not deceptive information, when compared with such palpation,—not to speak now of its many septic dangers, as used by many. The same maneuver brings the upper (anterior) edges of the broad ligaments, and the tubes enveloped by them toward us, so that we need but pass with the fingers of both hands from the uterus laterally, to get the broad ligaments flatwise (and not perniciously edgewise) between the fingers. It is self-evident that this presents the best chances for palpating the tubes along the anterior border of the broad ligaments, and the ovaries normally located on their upper (or posterior) surface, by means of one or two fingers through the corresponding side of the vaginal vault, when these organs are somewhat depressed and limited in their motion by counterpressure exercised by the fingers of the outside hand.

When anteversion of the uterus in this manner is at all possible, and grossly obscuring tumefactions or exudates are absent, we must succeed, with few exceptions, by this method of bimanual palpation, which—as stated later on—is better done with the fingers of the left hand in the vagina for the left side of the pelvis, and those of the right hand for the right side of it, in determining not only the position, size, contour, consistence, tenderness and mobility of the ovaries and inner halves of the tubes, but also the state of the round, broad and sacro-uterine ligaments and the cellular tissue planes within them, as to relaxation and atrophy, or cicatricial thickenings, retractions and distorsions as the result of bygone cellulitis (a puerperal process) in their interior, or of peritonitis affecting their exterior (peritoneal) surfaces.

So accurate a reading of the pelvis will be more difficult and sometimes impossible, when the uterus can not be brought into anteversion, but is fixed in moderate—not extreme—retroversion or flexion. With the fundus lying in the hollow of the sacrum, not far beneath the promontory, the appendages also lie thrown backward into a region farthest away from the vulva and scarcely accessible from above. Fortunately for many such cases there is one other avenue, from which we can approach them successfully, *i. e.*, the rectum. This same refuge saves us from defeat; secondly when the outside hand upon the abdomen can not gain sufficient access for bimanual palpation, as in very corpulent women, in nullipara with tense or unusually sensitive abdominal walls, and in cases where tumors or exudates crowd the uterus and its appendages downward. The same is true

thirdly, where the vaginal fingers are not given proper access, as in most virgins, in congenital or acquired occlusions in the vagina and in those cases where the posterior portion of the vaginal vault (posterior fornix) is short or tense and inelastic, so that it can not be distended upward sufficiently as in some young patients, in old women and some cases of long standing retroversion of the uterus. Furthermore, we should resort to this method of examination in all cases where doubts remain or something in the pelvis is not cleared up after using all other methods of palpation. Examination by way of the rectum was first described by Holst ("Veit: Gynecol. Diagnostik Zweite Auflage," S. 23). But the difficulty remained, that the index finger in the rectum can usually not reach up far enough. To offset this, Hegar (about 15 years ago) devised a sometimes useful method of drawing the uterus down with a vulcellum forceps applied to the cervix and held either by an assistant or by the third and fourth fingers of the examining hand against the hypothenar eminence. This is nothing less than what Howard A. Kelley recently claims as his "Trimanual Examination" ("Ann. Gynecol. and Pædiat." vol. vii, No. 4) in which he does the same thing by means of a tenaculum with a corrugated handle. The procedure itself, aside from the tenaculum, is nothing original with himself, as some might justly think from this author's manner of writing. As to the efficiency of this method he says (*l. c.*):

"The efficiency of the trimanual examination depends upon the fact that the normal uterus can be drawn down to the vaginal outlet without harm, and the tubes and ovaries being also displaced in proportion to the displacement of the uterus, are thus brought within easy reach."

To this I would say that it is not true, that all normal uteri that stand in normal anteversion, largely by reason of normally acting sacro-uterine ligaments or folds of due shortness and tonicity, can be drawn down to the vulva without pernicious effects upon those ligaments. Furthermore, in multiparous women the uterus, that may itself be healthy, is often fixed by cicatricial thickenings and retractions in its ligaments and its surrounding cellular tissue spaces (B. Shultze: "Samml. Klin. Vorträge," N. F., No. 24, p. 203) which will make it quite impossible to draw it down to the vulva. Again he says:

"In making examinations by the rectum it is necessary in order to palpate the pelvic structures clearly, to introduce the finger up beyond the ampulla or rectal pouch through the utero-sacral ligaments behind the uterus."

This is very true; but when the uterus is thus forcibly drawn downward, these ligaments are made tense, and they spring forward promi-

nently on both sides of Douglas' pouch and therefore limit the lateral movement of the examining finger, so that this range of movement remains a sufficient one only toward that side of the pelvis which corresponds to the hand used by the examiner and to the palmar (flexor) side of the examining finger. For we cannot bend that finger far on its dorsum nor toward its radial side, nor can we supinate the hand so excessively as to bring the only intelligent tactile surface of the finger in contact with the opposite side of the pelvis which naturally lies toward its dorsal or radial surface. Therefore it becomes necessary often to examine the left side of the pelvis with the finger of the left hand and the right side with that of the right hand in the rectum, whether the uterus be drawn down at the same time or not. But this Hegar device need be used for exceptional cases only, as in very corpulent women and others where large over-riding tumors crowd the uterus downward or backward, but do not fix it. As a rule, recto-abdominal palpation will render the traction unnecessary. And when this does not suffice as ordinarily applied, there is another method of recto-vagino-abdominal palpation which has served me well for several years, for both pelvic examination and massage. By this, I enter from 2 to 3 c. m. further into the rectum and have little need of drawing the uterus down. Instead of the index finger, I use the second or longest finger to explore with in the bowel and place the index finger into the vagina, to be simply out of the way or to be also used in directing the position of the uterus by manipulating the vaginal portion. Thus I can enter farther: (1) because I use the longest finger: (2) because the third and fourth fingers recede further and present much less of an obstacle externally, than the second finger does when the index finger is used in the rectum. Aside from the additional 2 to 3 c. m. thus gained, the recto-vaginal septum can be distended upward and backward into the body 2 or more c. m. With such an access into the rectum from below, the fundus need be but moderately crowded downward by the external hand, in order to explore the parts fully as well as can be done by the Hegar method of forcible, and sometimes harmful traction upon the cervix. And while one hand will sometimes answer for both sides, yet in the majority of cases, it will repay us for the trouble, if both hands are used in succession in this manner. Finally after all this, it must be understood, that many cases that present marked malformations with great sensitiveness, and others that are very obscure or difficult should be profoundly anesthetized and then subjected to the methods described, especially when the patient demands or is entitled to a statement of the degree of danger of for instance an abdominal section in her case.

Ladies and Gentlemen: I have spoken rather at length upon the

subject of examination, but I have done so advisedly and for cause,—for it is right here that the most of our sins of omission in gynecology are committed, with the result of invoking, sometimes, permanent disabilities or mutilating operations upon our patients and remorse upon ourselves. Take for instance my own limited experience upon one subject alone. During each of the last several years, at least a score of women have come to me, upon whom some reputable general practitioner or surgeon had either performed ordinary trachelorrhaphy for laceration of the cervix uteri,—without benefit or with detriment to the patient's health—or had unsuccessfully proposed such an operation. By careful and repeated examinations, I found in most of these cases—whether operated or not—conditions akin to the following: chronic metritis or endometritis which was kept up by obstruction to the venous return current due to retro-displacements,—or by a vicious sovereignty of diseased ovaries. (B. Schultze, l. c. p. 194); (Brennecke: "Archiv. f. Gyn." Bd. 20, s. 455); (Doederlein and Kaltenbach: "Deutsch Naturforsch.—Versammlung," Halle, 1891); (Czempin: "Centrl. Blatt fuer. Gyn.," 1891, s. 911). Others presented so-called chronic pelvic peritonitis, *i. e.*, the results of repeated attacks of acute peritonitis in the past, now shown in the form of band-like or surface adhesions causing fixations of the organs, or in the form of enveloping collodion-like coats of constricting compressing cicatricial layers deposited upon the peritoneal envelope of the organs so that the long tale of irritated nerve elements in these organs, derangement of their vascular apparatus, and pressure atrophy and degeneration of their parenchyma must follow and continue in them. (Bandl: "Krankheitend, Tuben, d. Ligamente, d. Beckenperitoneums u. d. Beckenbindegewebes," s. 148-170.) (Kuestner: Samml. Klin. Vorträge, N. F., No. 9, s. 44-48). Pelvic massage with vagino- or recto-abdominal galvanism were usually successful in such cases.

In a third class of these cases with deceptive lacerations of the cervix I found tubes with the thickness and consistence of lead pencils, or small inflammatory adherent tubo-ovarian tumors, or dilated tube-sacs that overflowed periodically and upon pressure, through the uterus, and were therefore difficult to detect sometimes. In such cases were used, with slow but rather generally good results: massage to hard *undilated* tubes and *around* adherent ovarian swellings to give freedom to them and to their blood vessels, after more acute conditions in such swellings had been removed by means of the glycerine drain, 3 gall. hot water douche twice daily in recumbent position, posture treatment and vagino- or recto-abdominal galvanism, etc. Following such preliminary treatment, and preceding the administration of massage, but also during the use of the latter, the endometrium was cared for by securing free drainage for all fluids

from its interior or from the tubes, by aseptic ample dilatation of the uterine canal with sounds (to No. 14 English) weekly or bi-weekly, and by the application of from 10 per cent to 50 per cent tinct. iodine in glycerine or in 5 per cent sol. carbolic acid, after each dilatation, with a syringe applicator, for its direct antiseptic effect upon the endometrium and for its secondary but undoubted good effect upon non-purulent inflammatory states of the uterine adnexæ, by absorption, (Mackenrodt: "Samml. Klin. Vorträge," N. F. No. 45).

In a fourth class of these mistaken cases of cervix laceration I found an inflamed or a degenerated ovary (mostly the left one, and hardly ever both ovaries,) that had wandered out from shelter beneath the ala vesperilionis too far, (Schultze: l. c., s. 194) and had strayed into the common highway—into Douglas' pouch behind the uterus—where every full rectum would crowd against it, coitus would injure it, and where, with retroversion of the uterus, this organ would be crammed down upon it during every forcible contraction of the diaphragm. In these cases I would use galvanism as before mentioned, liberate the ovary, when adherent, by massage (a difficult procedure), elevate it and endeavor to hold it from descending again, by bringing the fundus uteri into extreme anteversion and holding it there temporarily by a pessary, and permanently, if the ovary be found good enough to save, by the Alquié-Alexander-Adams operation. By this means, such an ovary may be held out of its old perilous situation if the ovarian ligament is not greatly elongated or destroyed. When the latter is true, abdominal section will be required to attach such a floating ovary in normal position, or for its removal.

Such and similar conditions, as I have alluded to in the four classes just spoken of, I found, and proved by the results, to be what was really the matter—the diagnosis proper—in these erringly proposed candidates for cervix repair. The accidentally but not etiologically associated laceration of the cervix was a pathological one in only a small proportion of the cases. And the ordinary trachelorrhaphy in these even, while good enough for a side issue, would have been utterly incapable of improving the more serious and obscure conditions in the peritoneal cavity, that were the real cause of these patients' sickness. But the possibility of harm resulting to these conditions from needless operating on the cervix is *not* excluded; especially when no fireproof aseptic technique is maintained or when drainage of the endometrium is impeded by a narrow cervical canal, such as I have frequently seen following the Emmet operation in diverse hands. Thus nearly all these patients recovered good or fair health subjectively, and the majority of them anatomically, without any operation, aside from abdominal section that was needed in a few of them, and shortening of the round ligaments in a large number,

with which operation I would usually also, when required, do the Schroeder operation for repair of the cervix and perineorrhaphy in the same sitting.

That ordinary trachelorrhaphy, after the manner of Emmet has been grossly overdone in America is a matter of history, and whether it should not wholly give way to better methods, is the proper question before us. Europeans who scrutinize the premises better, than we sometimes do, before drawing conclusions, have never regarded this operation with much favor, although they have accorded it a right to exist. During a two years close and favored post-graduate studentship to a number of the most eminent German gynecologists, and in the midst of a relatively great profusion of all kinds of gynecological cases and operations, I never saw or heard of a single Emmet operation; and it is dying here because it does not "fill the bill." It removes but one of the three principal or typical pathological changes that usually result—some or all of them—from harmful lacerations of the cervix, and by their presence in any given case we can know (and not merely guess) it to be a pathological laceration, and if they are absent we can know that it is a harmless one. For without these, as a solution of continuity in itself merely—a purely cosmetic grievance—it constitutes no indication for operation at all. In extensive lacerations these evil results will never be wholly averted. They are (1) the "cicatricial plugs" or wedges at the bottom or angle of each tear. These have resulted from union by granulation by means of which nature attempted to heal up the tear during the puerperal state, and succeeded to a small degree. (2) The diseased and rather hopelessly degenerated cervical mucous membrane, commonly called an erosion, which is a misnomer. There is no such thing as an erosion here, but an adenoid degeneration of columnar mucous membrane resulting from the ectropionated condition of the cervical lips and abnormal exposure to things that are and happen in the vagina. The median and most important portion of this diseased membrane on each cervical lip dare not be removed in the Emmet operation in order to retain a normal cervical canal and normal uterine drainage. But it is put back into the canal and will frequently require protracted after-treatment to bring it back to a normal condition, if this is possible at all. (3) The diseased cervical lips,—hard, inelastic and sensitive from connective tissue hyperplasia and hypertrophy of glands. The inflammatory action which usually follows a tear in the cervix during the puerperal state, due to the conditions that then rather prevail in the vagina, affects not merely the superficial surfaces, as the lining membrane and surfaces of the wound, but it penetrates deeper into the cervical tissue proper and engages the entire vaginal portion of the womb more or less. As a result of this

there follows not merely disease of the mucous membrane and its glands on the surface, but, connective tissue hyperplasia in the deeper cervical tissue beneath, in the body of the cervical lips which are made prominent furthermore by the concomitant cicatricial ectropium. The diseased bodies of such cervical lips together with the degenerated submucous glands and mucous membrane on their surfaces, constitute even more of an irritant to the womb and to the woman than the little "cicatricial plugs" do, in the angles of the tears, and stand in a proportionate need of removal which is manifestly impossible with the Emmet procedure.

The laceration as well as all of its adjacent evil consequences are removed by a suitable adaptation of an operation which the lamented Prof. Schroeder of Berlin performed many years ago, for the removal of bad, catarrhally diseased cervical mucous membrane (Schroeder: "Krankheiten d. Weiblichen Geschlechtsorgane," 7th Auflage, s. 143). When used for a pathological laceration of the cervix, this consists in (*a*) excision of the wedge at the bottom of each laceration. If there be only a unilateral tear and diseased cervical tissue and membrane is to be removed, then a sufficiently deep temporary incision of the cervix at a point opposite to the laceration, should be made, so that two lips or flaps are constructed, which can be separated so as to admit of sufficient access. (*b*) A cross cut is then made on the posterior lip through the mucous membrane and of the required depth into the cervical tissue beneath it, and as high up in the cervical canal, as is needed to remove all diseased membrane and still admit of the subsequent suturing. From this incision downward to the end of the lip the entire mucous membrane and, with it, all the subjacent indurated cervical tissue, with all the diseased glands (Nabothian follicles) in it, is removed in one piece, so that a hollowed-out flap of the soft and flexible outer vaginal portion of the portio vaginalis is left. This is then flexed inward upon itself and its end sutured by four to six catgut sutures to the projecting shoulder above (and created by) the transverse incision. (*c*) The anterior lip is next treated in the same manner; and finally, (*d*) Three to four silkworm gut sutures are introduced on each side similarly to the Emmet sutures. Thus a short and broad cervix or portio vaginalis is made whose external os is lined by squamous epithelium that will never degenerate as the less resistant columnar membrane does, from numerous local causes, and stenosis of the cervical canal is never invited as it often is by the ordinary operation—which to me has become quite superfluous.

What I desire to emphasize mostly, is that we should not do any operation upon the uterus whatever, until we have a fairly accurate knowledge of the condition of the entire womb and of its appendages; furthermore, that we should not operate when there is complicating

disease of the appendages and peritoneum, until we have convinced ourselves during a one or more months use of efficient and rational, local and general means, that such complicating disorders will get well by the further use of conservative means,—that nothing need be removed. One exception only I would make to this rule, viz.: In cases that present a straight history of infection or where clear objective signs of a septic or gonorrheal endometritis exist along with complicating inflammatory processes in the appendages or pelvic peritoneum, without purulent accumulations, it will be necessary to do a most careful and thorough cleaning out of the endometrium, lest it constitute a fountain to feed the inflammatory processes in the appendages. But this requires a room, table and implements suitably prepared as for other operations, a complete narcosis, instruments boiled, complete aseptic preparation of the patient's vagina and pudendum and of our hands, and assistants enough and equally clean to enable us to maintain a solid technique of unblemished asepsis throughout. The uterine canal must be dilated with sounds and a divulsor to a size that will admit never less than a No. 20 English sound, then the uterus washed out well with 1 in 4000 to 1 in 2000 sublimate solution which is made more effective in the presence of mucus, by the addition of an ounce of clean dried common salt to the gallon of solution and is introduced by means of an intra-uterine douche tube that provides amply for the return current; then very careful curettement must be done with sharp curettes, preferably those that provide for a constant current of irrigating fluid through the handle and shaft. The curettes should be at least two, a small one with which the tube angles can be cleaned out and a large one which will more certainly remove polypoid shreds from expanded surfaces, and their shafts must be susceptible of accommodative changes in curvature. After this we irrigate again with sterilized normal salt solution or with a weaker sublimate solution. Dilate again and apply tinct. iodine U. S. P., about 2 grams, injected at the fundus and swabbed about on the interior of the entire uterine cavity, by means of a syringe applicator wound with sterilized gauze or cotton. Then we irrigate with sterilized water or normal salt solution and pack the entire uterine cavity to the fundus and into the tube angles, with iodoform gauze cut and tied into a long strip 3 to 5 c. m. in width. Frequently repeated dilatation is necessary during this entire procedure which requires suitable instruments and sufficient skill on the part of the operator to carry it out without drawing the uterus down or dislocating it in any considerable degree in its bed of surrounding inflamed parts. The gauze packing must not be left in more than forty-eight hours and need usually not to be renewed.

At this time and three or more times subsequently, after intervals

of about three days, the uterine cavity should be irrigated with the 1 to 4000 sublimate solution with salt, through the proper douche tube. For each of these irrigations the patient must be placed upon a table, the vagina washed out first, then the uterus is sufficiently steadied by a bullet forceps applied horizontally (transversely) to the vaginal mucous membrane on the anterior of the anterior lip of the vaginal portion, while the canal is sufficiently dilated by aseptic *uterine dilating* sounds (and not by divulsor). Patient must remain in bed in the meantime never less than two weeks in the class of cases now spoken of, whose principal lesions are the inflammatory outcome of the initial septic endometritis, do not present purulent accumulations, but are located wholly extra-uterine in the appendages, pelvic peritoneum or cellular tissue. Instead of vaginal douches one or more times daily it is much better to keep the vagina packed with iodoform gauze from one irrigation to another, and in order that this vaginal packing may really accomplish its object—capillary drainage to all wounded or secreting surfaces and protection of them against infection from without—it must itself remain relatively dry; and this can be achieved only by extending it outward through the introitus so as to make constant contact between the separated labia, with an external pad of aseptic absorbent gauze or cotton which is frequently changed by the nurse and is retained in firm apposition to the vulva by means of a generous “T” bandage. The gauze in the introitus is shielded from urine by catheterizing the patient, or by using a suitably grooved and curved shield of hard rubber which is held over the gauze and is introduced beneath the urethral roll, or by letting the patient assume a prone posture upon her hands and knees during micturition.

After a two or more weeks course of such strictly surgical treatment with the patient in recumbency, a further and often more protracted course of ambulatory treatment will be needed in many of such cases as are here referred to, consisting of weekly or bi-weekly intra-uterine injections of iodine after ample dilation each time, with sounds and *not divulsors*; pelvic massage possibly assisted by electricity; the glycerine drain, hot douches, attention to the general health, and so on. But the rational, cautious and skillful use of these measures will demonstrate their efficiency, will render them endurable to the patient and will save many a woman from an abdominal section and from the loss of organs. A number of striking cases of even distended but profluent tubes that I have seen recover during the use of a combination of such means, I could narrate if time permitted. (Mackenrodt, l. c.). Nor can I at this time enter upon the extensive and important subjects of endometritis and metritis. Suffice it to allude to several fundamental principles in this connection.

Inflammatory diseases of the uterus and other pelvic organs are dependent upon two general classes of causes. *First*, predisposing and *secondly* exciting causes; and the role that is played by one or the other or by both, in each case, must be ascertained as nearly as possible, and the policy pursued and measures adopted in treatment, must be chosen accordingly. A large proportion of all the cases of endometritis are due chiefly or solely, to causes of the first class, and many of these are best treated by entirely *extra-uterine* local or constitutional means or by both.

The subject of predisposing causes is a much more important one than some writers seem to think, who appear to know of nothing but local infection. Here are concerned the prevalent embarrassments to the local circulation, the consequent defective nutrition, lowered vitality and diminution or loss of the naturally inherent defensive qualities of living tissues against the invasion of infection. Under this head come the various constitutional causes, but chiefly the derangements in the pelvic circulation. *Congestion*: active and passive. Active: as from too frequent, abnormal or vicious excitation of the sexual orgasm, or as produced by the irritation from "tender spots" in the pelvis like tender ovaries or harassing adhesions, fixations, exudates or neoplasms; and passive congestion from koprostasis or from vicious bands and adhesions from former peritonitis, constricting the veins, and—what is practically the most frequent source—obstruction to the venous current from retroversion and retroflexion of the uterus.

On this subject I will simply say that it is now acknowledged, after much post-mortem study, clinical observation and theoretical debate, by those who know most about the subject, that the normal position of the uterus in the *living* female can *not* be studied on the *dead*, (Schultze, l. c., S. 187) that the normal position of the uterus in the erect female is that of anteversion (with moderate antelexion), the degree of anteversion varying,—chiefly according to the varying fullness or collapse of the bladder and rectum—from a nearly vertical position where the fundus tips but slightly forward from the perpendicular axis of the body and the aggregate downward intra-abdominal forces from diaphragmatic contractions, still strike the fundus posteriorly to its summit—from that position down to the lowest imbedding of the corpus upon the bladder. There is practically no such thing as a pathological anteversion. Bladder and other symptoms here, are due to inflammatory and other complications, and not to the anteversion *per se*. But the contrary is true of tipping of the long axis of the uterus in the opposite (backward) direction. Normally the long uterine axis should form an acute angle with the long axis of the vagina, so that the downward intra-abdominal forces striking the uterus upon its posterior (upper) surface will cause it to bear, with the inter-

vening bladder, upon the side of the vaginal tube, thus causing this to collapse—to close up—and not drive the uterus like a wedge down this tube as they do when the uterus is retroverted or flexed. In the same manner as intra-abdominal pressure closes the inguinal canal by bearing against it from the side, and prevents the regular occurrence of inguinal hernia, so also intra-abdominal forces prevent the regular occurrence of uterine hernia (prolapse) per vaginam and protrusions from the rectum (with exceedingly rare exceptions) when the uterus is normally anteverted and the perineum and recto-vaginal septum are intact. But no normal perineum nor any method of perineorrhaphy alone can be depended upon to retain a uterus that is otherwise disposed to descend and whose long axis forms nearly a straight continuation of that of the vagina.

Thanks to Bernhard Schultze—a most benign leader of our ranks and benefactor second to none in the domain of women's most prevalent pelvic ailments—the general rank and file of gynecologists know very well from anatomical considerations and chiefly from practical experience that retroversion and flexion of the uterus *in itself* never tends to anything good but always to evil which it induces sooner or later, that inflammatory complications are here *not* the principal disturbing feature, that it is the displacement *per se* which invites the complications.

But a few of our colleagues, apparently at least, affect to believe and to say that it makes no difference in what direction the long axis of the uterus extends, that inflammatory complications constitute practically all that is abnormal and version nothing. They fail to distinguish between the rule and its exceptions and draw their conclusions wholly from the latter. We feel sorry for such of our colleagues who are led by some idiosyncrasy to thus ignore a plain chapter in anatomy and physiology, because they have to pay for such omission by various unpleasant experiences and remorse in their practice. When such a material visceral dislocation exists and the doctor wills not to recognize it and to correct it, the patients will usually not cease to give expression to their continued ailments, notwithstanding the arbitrary mandates of the physician that there is nothing more the matter and that all further pains and so on are imaginary. Then it becomes the *ultimum refugium* of the doctor to call the patient hysterical, the victim of perverse notions or dominated by suggestion or even a "crank" (*Amer. Jour. Obstet.*, January, 1892, p. 6.)

The evil effects of retroversion are: (1) That it directly and mechanically irritates the bladder and rectum and interferes with their normal functions. (2) It constitutes the first step in uterine descensus or prolapse. (3) By torsion and dragging upon the veins in the broad ligaments it impedes the venous current (B. Schultze, l. c., S. 194).

and induces passive congestion and lowered nutrition, *i. e.* trophic changes in the uterus, which are akin to the conditions under which a varicose ulcer of the leg forms and persists if the cause is not recognized and relieved. (4) As the ovarian ligaments are normally only 2 to 3 c. m. long and are attached to the fundus near its summit, it is evident what displacement is forced upon the ovaries when the fundus uteri is turned over backward and is made to describe an arc which corresponds to from 90 to 180 degrees of a circle with a radius of about 6 c. m. (distance from insertion of ovarian ligament to os internum). The ovaries become situated like a helpless child upon the street. They are turned or dragged down away from a more elevated and lateral position in the pelvis on the upper surfaces of their respective broad ligaments to a lower and more median position. Here they experience traumata from the rectum when it is filled and from the uterus, which in the retroverted position, is apt to be crowded down upon them during defecation and during various other contractions of the diaphragm; and, when they sink to the bottom of Douglas' cul-de-sac, coitus strikes them. The future of such a case presents the choice usually of one of three things: a timely and effective restoration of the uterus and ovaries into normal position, or an oöphorectomy in future years, or a perpetual hell on earth for the poor woman.

An error underlies all cutting operations for stenosis due to ante-flexion. The stenosis in the pathological ante-flexions, which are practically only those that have proceeded from the basis of insufficient development, is at the internal os or above it. An incision cannot be carried up through this without opening the peritoneal cavity, and it cannot be kept open by any plastic device nor by packing, without keeping the peritoneum open also. Therefore this sufficiently deep cutting cannot be done. All cutting is a means of relief for the external os only, for the cervical canal proper is more frequently dilated by a retention of cervical mucous than contracted in these cases. A contracted external os with such a dilated cervical canal above it is usually best treated by wide dilatation of the os and thorough curettement of the canal. But if preferred the external os may receive a short incision. But beyond this, all cutting and plastic devices from Sims to the present, belong with the cosmetic trachelorrhaphies and others that do not meet the indications, in that category of surgical amusement which is properly called whittling on the cervix. Schroeder says (l. c. p. 160): "As in these cases the cervical canal is almost regularly not narrowed, but often abnormally dilated and the incision never extends through the internal os, nothing is obtained thereby but a permanent disfigurement of the vaginal portion." The best treatment for stenosis anywhere in the uterine canal, with the possible exception of the external os, is the forcible

but gradual and wide dilatation of the canal and the constricted part in particular, in full narcosis and perfect asepsis, with sounds and a divulsor applied in different directions, substantially in the same manner and with the same antiseptic precautions as I have mentioned for any clean and thorough curettement. But here the burden of the procedure is the especially difficult dilatation which may take a half hour alone, as time is absolutely necessary for the muscular and connective tissues to stretch and not to tear. The region of the internal os and the cervical canal require the use of a sharp curette, the uterine cavity not always. But the entire tract must be rendered as aseptic as we can make it by the salt-sublimate or some other equally efficient antiseptic solution, applied with a good douche tube and repeated several times alternately with the efforts at dilatation. Finally the uterine cavity and cervical canal must be packed with iodoform gauze with a special effort to get as thick a roll of the gauze as possible packed through the formerly narrowed part of the tract. The aseptic technique must be inviolate throughout and then this packing may be left forty-eight to seventy-two hours, when it should be removed and renewed after a uterine antiseptic irrigation. This treatment sulcifies the contracted tissues and restores them to a more nearly normal condition than any cutting procedure could do if it were anatomically admissible, and rather less after-treatment, consisting of weekly dilatation with sounds and intra-uterine irrigation, is needed in order to secure a permanent result, than a plastic operation or an incision must be supplemented with in order to answer the indications.

It may seem superfluous to speak of, at least, a thorough soap and water cleanliness of our hands and instruments that are introduced into the vagina in office examinations, and of asepsis of everything that is introduced into the uterus. But unless all signs fail here, the necessary irrigator or other syringe device for administering vaginal cleansing douches and possibly also for intra-uterine irrigation is more frequently absent than present and in working order in the offices of many physicians. This is due, no doubt, largely to the cumbersomeness of the apparatus ordinarily in use and to the time required. But this can be largely obviated by using a kidney-shaped pus or drip basin with an outward projection on the middle of the concave side, which can be crowded in between the buttocks against the perineum, on a towel placed under it, without removing any clothing. This basin can be large enough to hold enough water and it will catch it quite safely. Many filthy or infected vaginæ need cleansing before any civilized being should introduce a finger into them. And always when any instrument is to be introduced into the uterus, the vagina should be previously irrigated with a potent antiseptic liquid—preferably the salt-sublimate solution—under some pressure created by holding the vaginal ostium closed periodically with the fingers.

While all instruments that are introduced into the vagina only are well enough cared for, in most ordinary cases, by the honest use of soap and water, all those that are used *within the uterus* or cervical canal or to hold the organ as vulcellum or bullet forceps, must be kept in and taken directly from a solution of carbolic acid of not less than five per cent. so that it will safely coagulate layers of mucus. And in order that this solution may not be speedily neutralized or rendered inert by the frequent dipping of our more or less dirty and septic fingers into it during protracted office work—during which it is impossible to maintain at all times even a perfect soap and water cleanliness on our hands—it is better to place these intra-uterine instruments standing upright in the five per cent. carbolic solution, in a tall slim jar with the handles only projecting above the liquid; and then enforce a rule or rigid discipline to grasp each instrument by its projecting handle only, and not to bring its greater aseptic portion in contact with any thing or surface whatsoever aside from the cervical canal and endometrium; and after using it to wash off all mucus by lashing it in clean water a little, and then return it directly into the carbolic solution in which all these instruments must remain standing for the hours of office duty. And in many of these cases the cervical canal must be swabbed out with twenty-five to fifty per cent. carbolic acid in glycerine on a cotton-wound applicator, before dilating sounds, and so on are introduced into the uterus. Any less observance of surgical cleanliness in these matters is a carelessness little short of criminal, in view of pertinent pathological and bacteriological facts. It is a breach of faith and the action of a traitor toward our patients.

Finally, I can allude but briefly to a modern and very efficient means which supplies a hitherto missing link in the combination of our various therapeutic measures in gynecology; and which furthermore competes successfully in a certain class of cases with abdominal section. This is pelvic massage. For a description of its technique, and indeed, for a proper statement of its merits I must, for the present, refer to the treatise upon this subject by the founder of it, Thure Brandt of Stockholm, ("Die Behandlung der Weiblichen Geschlechtskrankheiten") published in German at Berlin in 1891, and another edition in 1893, and as a translation in Wood's Medical and Surgical Monographs, 1891, page 3 to 173. Also to very valuable supplementary articles by a large number of good bright gynecologists among whom are the following: Schramm, Dresden, (Central Blatt f. gyn. No. 19, 1892); Wm. S. Baggot, (Dublin Jour. Med. Sciences, Oct., 1891); Holzapfel, (Wiener Med. Blätter, Nos. 40 to 43, 1890); F. Schureg, (Deutsche Med. Zeitung, Nos. 12 to 14, 1891); Preuschen, (Berl. Klin. Wochenschrift, No. 5, 1891); Gottschalk, (Berl. Klin. Wochenschrift, No. 30, 1891); Eugene Arendt, (Berlin Klin. Wochenschrift, No. 27, 1891); Vineberg, (N. Y. Med.

Jour., January 24, 1891, and Amer. Jour. Obstet., February, 1893); Duehrsen, (*Zeitschrift, f. Geb. u. gyn.* XXI, Heft. 2, and *Berl. Klin. Wochenschrift*, 1891, p. 1065 et. seq.); O. J. Mayer, (*Jour. Amer. Med. Ass.*, 1894, XXIII, p. 236).

The principal class of disorders for the relief of which this method stands alone, aside from abdominal section, is composed of the evil results of past pelvic peritonitis and puerperal cellulitis. In the peritoneal cavity these are vicious bands and adhesions and cicatricial contracting layers deposited upon the peritoneal envelope of the organs, and they are an evil in three ways:

1. By holding organs usually out of normal position, as the uterus in retroversion or flexion and an ovary in perilous descensus.
2. By depriving them of their necessary freedom and range of mobility.
3. By embarrassing the venous current and irritating the nerve elements in these organs, by their contraction and inelasticity.

To take these members out of the vice in which they have been placed, massage is the sovereign remedy, when the appendages are not hopelessly diseased. It excels its only competitor—celiotomy—because this is too frequently followed by new adhesions. Thus, during the past three years I have seen more than a hundred well marked cases of this kind regain fair health subjectively nearly in all cases, and anatomically also in the majority of them, by the use of this mechanical but exclusively manual treatment. The majority of these would otherwise have been driven, by the degree of their disability and suffering, to an abdominal section.

Then there is a larger number of cases where indurations, thickenings and retractions remain in the vagino-abdominal septum or diaphragm, around the uterus and within its ligaments, as the result of bygone puerperal inflammations chiefly (Bandl and Schultze, l. c.). Exceedingly numerous are such cases where the uterus is perfectly free from all peritoneal fixations, but is kept in retroversion or flexion by this condition in the immediately surrounding cellular tissue between the vagina and the peritoneum and between the layers of the broad ligaments. This condition holds the uterus not in absolute fixation but as by a spring. Nearly the whole range of motion is possible to it, but with a spring-like resistance which invariably turns it back into its vicious position when it has been brought into a normal one bimanually and is let loose. It is this same spring-like resistance that causes the poor successes and untoward occurrences in the use of retention apparatus and often frustrates the good of surgical measures that are adopted for the correction of retrodisplacements of the uterus. This stealthy foe must first be eliminated before such measures are adopted; and to do this, massage stands absolutely alone. For no

knife nor scissors nor anything else can safely remove cicatricial indurations and contractions from within the cellular tissue spaces around the uterus.

But pelvic massage is not easily acquired. It presupposes the applicant to be skilled in accurate bimanual pelvic examination. And, like all other potent means that we have, massage also is capable of doing harm if used improperly. But such harm, if it occurs, is due not to the method but to the one who is using it. To guard against this, I usually append the contra-indications to this method:

1. That the pelvic masseur be none other than a physician, that he be versed in the general principles of massage and, especially, that he be disciplined in pelvic examination sufficiently to read the female pelvis accurately with his fingers.
2. That massage be not used in the presence of acute or subacute inflammatory conditions.
3. That it be not administered when cystic conditions or enlargements exist in a broad ligament, an ovary, the peritoneum or lumen of a tube.
4. That it be not applied in dyscrasic states, as tuberculosis, and malignant or venereal diseases.
5. That it be very cautiously or not at all attempted in patients who probably labor under the habit of self abuse.

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